

REMARKS

Reconsideration and allowance of the subject application are respectfully requested. By this Amendment, claim 9 (which the Examiner has indicated to be allowable) has been cancelled, and the subject matter of claim 9 has been incorporated into independent claim 1. Therefore, upon entry of this Amendment, claims 1-8 and 9-27 are all the claims pending in the application. In response to the Office Action, Applicant respectfully submits that the claims define patentable subject matter.

Claims 14-17, 19, and 20 remain rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by cited Fukumoto et al. (U.S. Patent No. 6,380,923, hereafter “Fukumoto”).

Claims 1-5, 7, 8, 26, and 27 remain rejected under 35 U.S.C. § 103(a) as being unpatentable over Fukumoto.

Claims 6, 9-13, 18, and 21-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

I. Rejection of Claims 14-17, 19, and 20

In the previous Office Action dated July 21, 2008, the Examiner asserted that Fukumoto teaches all of the elements of independent claim 14.

In the Response filed on October 21, 2008, Applicant submitted that there is no teaching or suggestion in Fukumoto of “sensing a stroke of a virtual button of the virtual keyboard by a user”, as recited in the claim. Applicant argued that Fukumoto teaches inputting information based on the striking of a fingertip against a physical surface such as a desk or table (column 2, lines 15-20). The input information is determined based on which finger struck the physical

surface, which combination of fingers struck the physical surface, or from the order in which the fingers struck the surface over a period of time (column 2, lines 44-49). After the fingers strike the physical surface, a shock that is generated based on the striking is detected and analyzed in order to determine the input information (column 2, lines 21-29). However, Fukumoto does not teach or suggest stroking or clicking a button or key of a virtual keyboard.

In response, the Examiner asserts “Fukumoto et al. teaches stroking or clicking a button or key of a virtual keyboard (fig. 1, col. 1, lines 36-43, 54-65)”.² Applicant respectfully disagrees with the Examiner.

Fukumoto describes a prior art device in which tactile and/or pressure sensors are installed in the fingertip portions of a glove or finger sacks, and a virtual keyboard is realized which detects the tapping of the fingers on a physical body such as a desk. In the system of Fukumoto, shock sensors are used to detect the striking of the fingers against a physical surface. The shock generated at the time of striking the surface is detected, and the timing at which the finger tip strikes the surface is analyzed.

Contrary to the Examiner’s assertion, Fukumoto does not teach or suggest “sensing a stroke of a virtual button”, as recited in claim 14. In fact, Fukumoto does not even mention or depict virtual buttons, and thus cannot teach or suggest “clicking a button or key of a virtual keyboard” as asserted by the Examiner..

The Examiner further asserts:

² Page 7 of the Office Action dated February 12, 2009.

On the same page, the same paragraph of Remark, Applicant's stated that Fukumoto et al. is geared toward determining input information based on the order in which fingers strike a physical surface, while the claimed invention is based on determining a key value based on the order in which fingers stroke a virtual button containing key values. However, in Fukumoto et al. a **virtual button containing key values is the order in which fingers strike a physical surface** (emphasis included).³

Again, Applicant respectfully disagrees with the Examiner's stated position.

To anticipate a claim, the reference must teach every element of the claim. See MPEP § 2131. Moreover, "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989), cited in MPEP § 2131.

First, the Examiner appears to be asserting subject matter that is neither taught nor suggested by Fukumoto. Nowhere does Fukumoto teach or suggest virtual buttons. The Examiner now appears to assert that the claimed "virtual button" allegedly reads on the order in which fingers strike a physical surface as taught by Fukumoto. However, Applicant submits that the Examiner's position is erroneous for at least the following reasons.

Fukumoto uses an analyzer (PL1) to analyze or determine the finger typing pattern, and represents the finger typing pattern with a chord pattern (column 6, line 41 to column 7, line 25). The character code is determined by using a chord conversion table (see FIG. 11D) which is recorded in the analyzer from the obtained chord patterns. Accordingly, the character codes of Fukumoto are not obtained by sensing a stroke of a virtual button as claimed, but are obtained by

³ Page 7 of the Office Action.

comparing a chord pattern in a chord conversion table with prestored code values, thus undermining the Examiner's basis for the rejection.

II. Rejection of claims 1-5, 7, 8, 26, and 27

In the previous Response, Applicant further submitted that with respect to independent claim 1, and analogous independent claims 26 and 27, there is no teaching or suggestion in Fukumoto of the element “a hand position and finger order determination unit that determines which button of a plurality of buttons of the virtual keyboard is stroked and which fingers are used to stroke the stroked button”, as recited in the claim.

In response, the Examiner did not specifically address this aspect of Applicant's arguments, and continues to appear to assert that the virtual buttons allegedly read on parts PD1-PD5 (FIG. 9C) of Fukumoto. However, parts PD1-PD5 are light receptors (column 6, lines 19-25), and are not virtual buttons as asserted by the Examiner. Further, as discussed above, since Fukumoto does not teach or suggest “virtual buttons”, then Fukumoto cannot teach or suggest “a hand position and finger order determination unit that determines which button of a plurality of buttons of the virtual keyboard is stroked and which fingers are used to stroke the stroked button”, as recited in the claim.

With respect to claims 26 and 27, in the previous Response, Applicant submitted that there is no teaching or suggestion in Fukumoto “determining the number of sensors” and “allocating key values according to the number of sensors”, as recited in claims 26 and 27. Applicant further submitted that it would not be obvious to one of ordinary skill in the art to modify Fukumoto to allocate key values according to the number of sensors.

In response, the Examiner did not address this aspect of Applicant' arguments.

By this Amendment, Applicant has incorporated the subject matter of allowable claim 9 into independent claim 1. Accordingly claim 1 and dependent claims 2-7 and 10-13 are now in condition for allowance.

Applicant further respectfully submits that independent claims 14, 26, and 27 should be allowable because the cited reference does not teach or suggest all of the features of the claims. Claims 15-25 should also be allowable at least by virtue of their dependency on independent claim 14.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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